

**REMARKS****Overview**

Claims 1-26 are pending in this application. Claims 2 and 4 have been canceled. Claims 1, 3, and 5-6 have been amended. Support for these amendments can found in the published application, at paragraphs 35, 37, 38, 41, 133, 177, Table 2 and Examples 1-3. No new matter has been added. The present response is an earnest effort to place all claims in proper form for immediate allowance. Reconsideration and passage to issuance is therefore respectfully requested.

**Claim Objections**

The Examiner states that objection to claims 1 and 3-6 in the recitation of "CYP2E1" is maintained for the reasons of record as set forth at item 10 of the Office Action mailed July 28, 2004 and for the reasons stated below.

Applicants thank the Examiner for pointing out this inadvertent mistake. Accordingly, Applicants have amended claims 1, 3, and 5-6 so that they read "cytochrome P450 (CYP2E1)".

**Claims Rejections - 35 U.S.C. § 112, Second Paragraph****A. Indefiniteness**

The Examiner states that claims 1-6 under 35 U.S.C. § 112, second paragraph, stand rejected as being indefinite in the recitation of "levels" for the reasons of record as set forth at item 4, part a of the Office Action mailed July 28, 2004 and for the reasons stated below.

Applicants have amended claim 1 so that it now recites "A method for determining the susceptibility of a male pig to developing boar taint comprising: (a) obtaining a liver sample from the male pig; and (b) detecting one or more of the following: immunologically detecting

the level of cytochrome P450 (CYP2E1); detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol, wherein a higher level of CYP2E1, a lower rate of glucuronidation of para-nitrophenol or 2-naphthol, or higher rate of sulfation of 2-naphthol as compared to a male control pig with boar taint or a group of male control pigs with boar taint indicates that the male pig has a reduced susceptibility to developing boar taint." Applicants respectfully submit that the claims 1, 3, and 5-6 are allowable.

#### **B. Indefiniteness**

The Examiner states that claims 1-6 under 35 U.S.C. § 112, second paragraph, stand rejected as being unclear in the recitation of "high levels of CYP2E1", "high levels of a thermostable phenol sulfotransferase," and "low levels of a glucuronyl transferase" is maintained for the reasons of record as set forth at item 14, part b of the Office Action mailed July 28, 2004 and for the reasons stated below.

The Examiner states that while the specification provides non-limiting examples of what a "suitable control" is meant to encompass by reciting "[s]uitable controls include female pigs and male pigs that are known to have boar taint." The Examiner states that, however, there is no indication that a "suitable" control is meant to be limited to female pigs and male pigs that are known to have boar taint. The Examiner states that while the specification indicates that a "suitable control" includes female pigs and male pigs that are known to have boar taint, is the scope of "suitable" controls limited to female pigs and male pigs that are known to have boar taint? The Examiner states that as such, it is unclear from the specification as to the scope of "suitable" controls that are to be used as reference to determine whether the sample from the

male pig has relatively high, low, or equivalent levels of CYP2E1, a thermostable phenol sulfotransferase and/or a glucuronyl transferase.

Applicants have amended claim 1 so that it now recites "'A method for determining the susceptibility of a male pig to developing boar taint comprising: (a) obtaining a liver sample from the male pig; and (b) detecting one or more of the following: immunologically detecting the level of cytochrome P450 (CYP2E1); detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol, wherein a higher level of CYP2E1, a lower rate of glucuronidation of para-nitrophenol or 2-naphthol, or higher rate of sulfation of 2-naphthol as compared to a male control pig with boar taint or a group of male control pigs with boar taint indicates that the male pig has a reduced susceptibility to developing boar taint." Claim 3 has been rewritten to be in independent claim format. As amended claim 3 recites "A method for determining the susceptibility of a male pig to developing boar taint comprising:

(a) obtaining a liver sample from the male pig; and (b) detecting one or more of the following: immunologically detecting the level of cytochrome P450 (CYP2E1), detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol, wherein a same or higher level of CYP2E1, a lower rate of glucuronidation of para-nitrophenol or 2-naphthol, or a same or higher rate of sulfation of 2-naphthol as compared to a female control pig indicates that the male pig has a reduced susceptibility to developing boar taint." Support for this amendment can be found in paragraphs 35, 38, and 41 in the published application. Claims 5-6, depending from definite claim 1, are likewise definite. Applicants respectfully submit that the claims 1, 3, and 5-6 are allowable.

**C. Indefiniteness**

The Examiner states that claims 1-6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in the recitation of "a thermostable phenol sulfotransferase" is maintained for the reasons of record as set forth at item 14, part c of the Office Action mailed July 28, 2004 and for the reasons stated below.

Applicants respectfully disagree but in order to expedite prosecution, Applicants have removed the language thermostable phenol sulfotransferase from claims 1-6. Applicants respectfully submit that claims 1, 3, and 5-6 are allowable.

**D. Indefiniteness**

The Examiner states that claims 1-6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in the recitation of "[a] method" is maintained for the reasons of record as set forth at item 14, part d of the Office Action mailed July 28, 2004 and for the reasons stated below.

Applicants thank the Examiner for pointing out this inadvertent error and accordingly have amended claims 5-6 so that they now recite "the method according to claim". Therefore, Applicants respectfully submit that the claims 1, 3, and 5-6 are allowable.

**Claim Rejections - 35 U.S.C. § 112, First Paragraph****A. Written Description**

The Examiner states 1-6 stand rejected under 35 U.S.C. § 112, first paragraph, for failure to comply with written description requirements. The Examiner states that in contrast, the specification fails to describe the characteristics that distinguish the recited genera of sulfotransferases and glucuronyl transferases such that a skilled artisan could recognize the

members of the respective genus such that one could detect their levels in order to determine the susceptibility of male pig to developing boar taint. The Examiner states that given the lack of description of a representative number of species of sulfotransferases and glucuronyl transferases that are related to a male pig's susceptibility to developing boar taint, the specification fails to sufficiently describe the claimed invention in such full clear, concise, and exact terms that a skilled artisan would recognize that applicant was in possession of the claimed invention. Applicants respectfully disagree but in order to expedite prosecution, Applicants have removed the language thermostable phenol sulfotransferase and/or glucuronyl transferase from claims 1, 3, and 5-6. Applicants respectfully submit that the claims 1, 3, and 5-6 are allowable.

#### **B. Enablement**

The Examiner states that claims 1-6 stand rejected under 35 U.S.C. § 112, first paragraph, for failure to comply with enablement requirements. The Examiner states that the specification, while being enabling for a method for determining the susceptibility of a male pig to developing (synthesizing or forming) boar taint comprising: a) obtaining a liver sample from a male pig, and b) immunologically detecting the level of CYP2E1 by Western blotting, detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol wherein a high level of CYP2E1, a low rate of glucuronidation of para-nitrophenol or 2-naphthol, or a high rate of sulfation of 2-naphthol as compared to a female control pig or a male control pig or a group of male control pigs indicates that the male pig has a reduced susceptibility to developing boar taint, does not reasonably provide enablement for the methods as encompassed by claims 1-6.

Applicants have amended claim 1 so that it no longer recites a thermostable phenol sulfotransferase or a glucuronyl transferase. As amended claim 1 recites "A method for

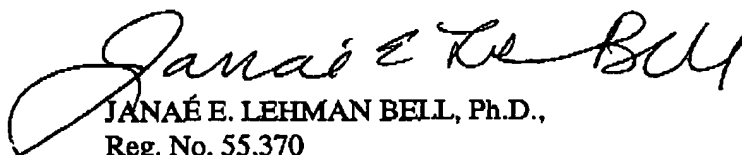
determining the susceptibility of a male pig to developing boar taint comprising: (a) obtaining a liver sample from the male pig; and (b) detecting one or more of the following: immunologically detecting the level of cytochrome P450 (CYP2E1); detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol, wherein a higher level of CYP2E1, a lower rate of glucuronidation of para-nitrophenol or 2-naphthol, or higher rate of sulfation of 2-naphthol as compared to a male control pig with boar taint or a group of male control pigs with boar taint indicates that the male pig has a reduced susceptibility to developing boar taint." Applicants have canceled claims 2 and 4. Dependent claims 5 and 6 have been similarly amended. Claim 3 has been amended so that it now recites "A method for determining the susceptibility of a male pig to developing boar taint comprising: (a) obtaining a liver sample from the male pig; and (b) detecting one or more of the following: immunologically detecting the level of cytochrome P450 (CYP2E1), detecting CYP2E1 enzymatic activity, detecting the rate of glucuronidation of para-nitrophenol or 2-naphthol, or detecting the rate of sulfation of 2-naphthol, wherein a same or higher level of CYP2E1, a lower rate of glucuronidation of para-nitrophenol or 2-naphthol, or a same or higher rate of sulfation of 2-naphthol as compared to a female control pig indicates that the male pig has a reduced susceptibility to developing boar taint." Applicants believe they have alleviated Examiner's concerns. Support for these amendments can be found in the published application at paragraphs 35, 37, 38, 41, 133, 177, Table 2 and Examples 1-3. Applicants respectfully submit that claims 1, 3, and 5-6 are allowable.

**Conclusion**

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration is respectfully requested.

Respectfully submitted,



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